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ABSTRACT

This symposium was intended to promote discussion of policies, procedures, and activities to enhance collaboration among programs of the Office of Educational Research and Improvement (OERI) in ways that would contribute to more efficient and effective management of the nation's overall educational research, development, and dissemination (RD&D) system. The topics addressed were concerned with: (1) the increase in the importance of educational research; (2) the structure of the RD&D system; (3) the nature of collaboration; and (4) OERI's role in fostering collaboration. The report provides an executive summary of the session as well as the comments of the two speakers who introduced and moderated the symposium and the three members of the symposium panel: (1) Judi Conrad, ERIC Clearinghouse on Handicapped and Gifted Children; (2) Bruno Manno, OERI; (3) John Hollifield, Dissemination and Outreach Center for Research on Elementary and Middle Schools, Johns Hopkins University; (4) David Crandall, Laboratory for Educational Improvement of the Northeast and Islands; and (5) Susan Fuhrman, Center for Policy Research in Education, Rutgers University. Also provided are the comments of two reactors, Christopher Cross of Macro Systems, Inc., and Willis Hawley of Vanderbilt University, and the senior officials of the five OERI program offices: Milton Goldberg, Office of Research; Nelson Smith, Programs for the Improvement of Practice; Emerson Elliot, National Center for Education Statistics; Ray Fry, Library Programs; and Sharon Horn, Information Services. Bruno Manno delivered the closing remarks. (SD)

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The Role of OERI and Its Institutional Projects in Establishing an Effective Research, Development, and Dissemination Program

A Symposium

Sponsored by
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The Role of OERI and Its Institutional Projects in Establishing an Effective Research, Development, and Dissemination Program

Executive Summary

Introduction

The Office of Educational Research and Improvement (OERI), in conjunction with the annual meeting of the ERIC Directors, held a symposium designed to promote discussions on the effectiveness of the existing structure of the nation's educational research, development, and dissemination (RD&D) system. The symposium, which continued efforts begun last year to foster collaboration among and between OERI and its institutional projects, had as its specific purpose a discussion of policies, procedures, and activities to enhance collaboration among OERI's programs in ways that would contribute to more efficient and effective management of the overall RD&D enterprise.

In the late 1960s, as part of an expanded effort to build a more scientific base of knowledge for the practice of education, the Bureau of Research initiated a network of national research centers, regional education laboratories, and information clearinghouses. Since that time, considerable changes have taken place in the practice, delivery, and structure of education. More significant changes have taken place with respect to the role of State agencies and the demands for information about education from a wide spectrum of public officials and lay groups.

Presenters at this symposium were chosen on the basis of their experience and knowledge of the Federal efforts in the support of education RD&D over the past two decades and their ability to recognize a new set of demands which could influence the current arrangement and operation of those institutions which create, analyze, or disseminate research and statistical information relating to education. The stimulating and thoughtful remarks of the presenters and the discussions to follow should contribute to the planning and policy development of the Administration and the Congress as they consider appropriate options for a new and more effective infrastructure for Federal education RD&D.

Judi Conrad, Associate Director, ERIC Clearinghouse on Handicapped Children, Council for Exceptional Children, introduced the symposium. OERI Acting Assistant Secretary Bruno Manno served as symposium moderator. The panel consisted of three presenters: John Hollifield, Associate Director for Dissemination and Outreach, Center for Research on Elementary and Middle Schools, Johns Hopkins University; David Crandall, Director, Laboratory for Educational Improvement of the Northeast and Islands, The Network, Andover, Massachusetts; and Susan Fuhrman, Director, Center for Policy Research in Education, Eagleton Institute of Politics, Rutgers University; and two reactors, Christopher Cross, Vice Chairman, Macro Systems, Inc., Silver Spring, Maryland, and Willis Hawley, Dean, Peabody College, Vanderbilt University. These presentations were followed by comments from senior officials of the five OERI program offices: Milton Goldberg, Director, Office of Research; Nelson Smith, Acting Director, Programs for the Improvement of Practice; Emerson Elliott, Acting Commissioner, National Center for Education Statistics; Ray Fry, Senior Advisor, Library Programs; and Sharon Horn, Acting Director, Information Services.

This paper summarizes the remarks of the presenters and reactors around the following topics: 1) the increase in the importance of educational research; 2) the structure of the RD&D system; 3) the nature of collaboration; and 4) OERI's role in fostering collaboration.

Increase in Importance of Educational Research

In his opening remarks, Acting Assistant Secretary Manno noted a recent trend—the growth in the importance of educational research, especially among noneducation groups. He observed that the debate about education in this country has begun to include "our topic," educational research, development, and dissemination, with members of the business community, press, and policymakers calling for a stronger federal RD&D effort. This increased importance of education RD&D, according to Manno, seems to be prompted by the need of educators, policymakers, parents, and citizens for better performance from schools. The latest information on state-of-the-art policies and practices is per-

ceived as critical to guiding change and sorting out which changes deliver real improvements in student learning. As Manno stated, "If there is any one role that the Federal Government has when it comes to education, it is the provision of accurate, timely, and reliable information on education."

Structure of the RD&D System

According to Manno, making the most of its limited federal dollars is one of the most important challenges facing OERI. Meeting this challenge, he said, "depends largely upon how much progress we continue to make toward a longstanding OERI goal, which is making OERI less an array of discrete, independently operating units and more of a unified, coherent organization, a coordinated, integrated RD&D *system*."

Hollifield echoed Manno's call for an integrated RD&D system, stressing the need for all the elements—OERI, the research centers, regional labs, ERIC, and the NDN—to work in conjunction with one another and with national education associations, individual researchers, and multiple special interest groups, all pulling together to improve the bottom line, student learning. He supported the current structure but suggested some modifications in parts of the system. He said that R&D centers should conduct basic research but that the nature of the R&D should be determined by their mission areas. Thus some centers would be devoted exclusively to basic research, whereas others would be "full service" centers, more heavily into development, implementation, and evaluation. The regional labs should not only continue to respond to the needs of their regions with R&D information but should also develop and maintain the capacity to conduct research projects. This model suggests that neither centers nor labs will look alike but rather will function in ways that best serve their clients. Hollifield urged that both centers and labs engage more in R&D that produces proven effective programs and practices for use by schools and districts and channel their research-based school improvement products into the NDN, which offers "a precise model for dissemination and use of research-based R&D . . . with some evidence that it works in terms of improving student achievement."

Regarding ERIC, he identified the need to "let ERIC be ERIC," concentrating on its mission of information acquisition and dissemination undiluted by additional tasks. For example, according to Hollifield, the ERIC system should not be held responsible for the proper and effective use of its information. Rather, he proposed a separate effort funded specifically to document the impact of dissemination of research findings through ERIC, the labs and centers on student learning. For Hollifield, "such evidence, when gathered, will strengthen the entire R&D enterprise."

Crandall, representing a lab, the NDN, and a minicenter, noted that the elements of the current system—the clearinghouses, regional labs, and the state facilitors of the NDN—have stood the test of time and urged that they become "permanent parts of the infrastructure" as a means of stabilizing the RD&D system.

Hawley also called for changes, raising the possibility of a reconceptualization and radical restructuring of the entire R&D system sometime in the future. He observed that important pieces are missing in the current system, such as a mechanism for knowledge utilization to feed back to research. Relatively few people, especially at the school level, are required to utilize research. As a solution, he proposed an enhanced role for school librarians, to provide information to help teachers and school administrators. This would necessitate a rethinking of library training at the Federal level.

In addition, Hawley pointed out the need to accommodate the new role and capacity of the States, which has major implications for the restructuring of the labs and ERIC. He suggested that a realignment of the ERIC system, by clustering or consolidating the existing centers or aligning ERIC with the research priorities evident in the missions of the centers themselves, would be desirable.

Cross advocated that the system specifically recognize the multiple viewpoints of the consumers. He urged that the Department convene a group of education information consumers, a "focus group," in order to understand what information they need, how they go about trying to get it, and the barriers to getting information that exist in the current system. He also proposed that the Federal Government look at the whole enterprise of RD&D and ask the question: "What needs to be done now?" He pointed out that when the educational R&D institutions were created in the mid-1960s, nothing else existed; now there is a variety of other information providers and users in the system. Cross called for something like a National Academy of Sciences/National Research Council panel to look at this enterprise and report to the Department, and to the Federal Government as a whole, with recommendations for reorganizing the RD&D system.

Nature of Collaboration

Whether suggesting major changes or minor modifications in the current structure of the RD&D system, all speakers supported increased collaboration as a means of increasing the effectiveness of the system. To achieve OERI's goal of a coordinated, integrated RD&D system, Manno urged continuation of efforts in three areas: communication, cooperation, and collaboration. He urged more of the "three Cs" in a variety of efforts—topical or thematic approaches, general functions such as knowledge generation and dissemination, and a range of specific activities, citing early childhood as one area ripe for collaboration. Crandall added a fourth "C," coordination, stressing the need to understand the differences among each of the levels and the interrelationships.

The panelists warned against collaboration for its own sake, but rather, as Fuhrman stated, to keep focused on "collaboration for the sake of improving the efficiency, the quality, the impact of educational research and development." The views of the panelists varied regarding the circumstances promoting collaboration. Collaboration, said Crandall, "is not a natural act," but for people willing to endure some pain, "it is worth it;" to occur, it needs some "forcing" and facilitating from OERI. But from Fuhrman's point of view, collaboration occurs "naturally" when people know each other, perceive common interests and mutual benefit. Such collaboration neither needs nor requires incentives from OERI to occur. She urged against fund setasides or special competitions and against rewarding or encouraging collaboration in and of itself, as such might divert the focus away from collaboration undertaken in the service of improvement.

The notions of common interest and mutual benefit as bases for collaboration were underscored by Hawley. Common interest relates to agreement on the bottom line. Perception of mutual benefit relates to a shared common concern about outcomes and perception of mission—and the norm of reciprocity, the perception of equal contributions to a collaborative activity. Hawley urged consideration of ways to create interdependencies between research and dissemination that lead to equal status. He added four additional bases for collaboration: self-interest, trust, the need for a common language, and common constructs.

OERI's Role in Fostering Collaboration

Several of the speakers presented their views of OERI's role regarding collaboration. To encourage collaboration among the institutional projects, Fuhrman suggested that OERI: 1) provide occasions for those involved in the institutional projects to meet and to forge working relationships; 2) increase and enhance information-sharing activities; 3) remove barriers to sharing data and work in progress; and 4) establish routine mechanisms for institutional projects to help each other in dissemination activities. To facilitate collaboration between OERI-funded projects and the field, she encouraged OERI to work with associations—both policymaker and practitioner associations—to encourage links with clients and clients' groups in mission statements and in continuing liaison work and to provide opportunities for client groups to meet and hear center researchers—basically facilitating the kind of interaction which gets the research to the clients. Fuhrman also encouraged OERI to collaborate with other government agencies.

Crandall encouraged organizational incentives "for the kind of exchange that goes beyond simply licking the stamp and sticking it on your latest report and firing it out in the mail." He viewed OERI's role as that of facilitator, "combining the forcing function with the friendly support in facilitation." He urged OERI to "require us to sit down and knock our heads together on some stuff . . . in ways that haven't been tried yet." At the same time he stressed, " We need time to get our own acts together, whether it be in networks, or subnetworks of like-minded people, or umbrella organizations."

Conclusion

In responding to the symposium topic, panelists presented their views regarding 1) the restructuring of OERI's current RD&D system, 2) the role of collaboration in contributing to an integrated RD&D effort, 3) the ways in which collaboration can be enhanced between and among OERI and the institutional projects, and 4) OERI's role in fostering collaboration.

In his closing remarks, Manno emphasized the special and unique "window of opportunity" which now exists in reference to OERI's RD&D efforts, offering an unprecedented opportunity to multiply the impact of research on practice. The ideas and interactions generated by the symposium will contribute to this effort.

The Role of OERI and Its Institutional Projects in Establishing an Effective Research, Development, and Dissemination Program

Proceedings

Judi Conrad

Associate Director, ERIC Clearinghouse on Handicapped and Gifted Children
Council for Exceptional Children (CEC)

I am very pleased and proud to welcome all the speakers, the reactors, and the OERI staff who have gathered together today to attend this symposium. The ERIC system is very concerned about the focus and the role that it is to play in the integration of institutional projects. We heard some remarks a few moments ago about the significance of what we are all about: educating children; delivery of information that makes for effective education in this country. We are all a part of that enterprise.

This meeting is structured to examine the various roles that we can play to make that happen. The mechanism that we are looking at today is collaboration. I am here to tell you that I know collaboration works. I know, because the ERIC system has entered into what we are calling ERIC partnerships that are tremendously dynamic, tremendously powerful in the identification of the resources that all our constituents have to bring to bear on the delivery of information. We are finding out what we can offer our partners, what they can offer us, what formats most please those folks, what kinds of information they need, what topics are of most concern to them. We know collaboration works.

We need now to work together, those of us who are institutional projects within OERI, to promote that same kind of interaction, that same kind of maximizing of resources to better deliver information to those who are the practitioners in this country, to those who are on the front line delivering education to children.

Bruno Manno, who is the Acting Assistant Secretary for OERI, will serve as the moderator for this meeting.

Bruno V. Manno

Acting Assistant Secretary
Office of Educational Research and Improvement
U.S. Department of Education

Let me begin my remarks by making two points and discussing these points in more detail. I would like to discuss a trend that I have seen emerging over the last couple of years in education research. From my perspective, the importance of education research, and in particular its *perceived* importance by noneducation groups, has grown immensely in recent years. That is point number one. I will elaborate on that in a second. Point number two is this: This trend, coupled with upcoming events in OERI, offers an unprecedented opportunity for this agency to multiply the impact of research on practice.

Let's go back to the first point. The debate about education in this country in the last few years has begun to include what I want to call "our topic," education research, development, and dissemination, or RD&D for short. What I think is significant about this is that the perceived need or demand for more RD&D "leaked out" of the education community. An interesting collection of leaders and groups is calling for a stronger Federal RD&D effort.

Let me give you some examples of those groups. David Kearns, in his book *Winning the Brain Race*, sets forth an education recovery plan that includes more research, more experiments in teaching and school organization, and a beefed-up national assessment of educational progress (NAEP).

Another example: In the 1989 report, *Governing America*, published by the Council on Competitiveness, we see the Council calling for "additional (Federal) technical support for innovative school-reform programs." That report specifically names OERI and emphasizes the importance of OERI's mission, which the Council says, is to "collect and analyze information about State and local-based educational programs, identify best educational practices,

and provide interested State and local educational authorities with information on the development, organization and operation of such programs. That is another example of an outside group, a noneducation group in the strict sense of the word, talking about this RD&D mission.

Here is another example. The Business Higher Education Forum recently issued a report entitled *American Potential: The Human Dimension*, which states that more knowledge is needed "of cognitive processes and effective teaching and learning strategies" and that a better job must be done in "getting this information to the classroom teacher."

The importance of improving RD&D is implicit in a number of reports, including one that President Bush has embraced, the National Center on Education and the Economy's *To Secure Our Future: The Federal Role in Education*.

Business and CEOs are not the only ones calling for more and better education RD&D. Educators, the press, and policymakers have chimed in.

Business and CEOs are not the only ones calling for more and better education RD&D. Educators, the press, and policymakers have chimed in. Pat Graham, Dean of Harvard's School of Education, in a *New York Times* article is quoted by Ed Fiske as saying, "If we are serious about changes like decentralizing school management, then we need to invest more significantly in finding out how to do it." Ed Fiske, in another article, had this to say: If the education system is to be altered in the fundamental ways President Bush seems to desire, "a more vigorous Federal research role might pay big dividends." Joan Wills, formerly of the NGA and now with the National Center on Education and the Economy, in an appearance before the Subcommittee on Education and Health of the Joint Economic Committee, pleaded for a stronger Federal effort in data collection, and in assessing student achievement.

I could go on and refer to other groups which have called for this increased RD&D role from the Federal perspective, but my point has been made: the perceived importance of education RD&D has grown in recent years. The reason as I see it is this: educators, policymakers, parents, and citizens want better performance from their schools. Good information—the latest up-to-date information on state-of-the-art policies and practices—is rightly perceived as critical to guiding and directing changes and to sorting out which changes deliver real improvements in student learning.

Providing such information is not the *only* Federal responsibility in education, but it is certainly the oldest and in many ways the most central Federal role in education. In fact, the Subcommittee on Select Education, which is the oversight committee for OERI, wrote last September that "of all the forms of assistance that the Federal Government could possibly provide, RD&D is the least expensive, the least threatening, and the most needed."

My second point. This is the notion of the upcoming events in OERI that create a window of opportunity. As you know, OERI is the main conduit for federally supported education RD&D. But like all Federal agencies, as much as we continue to plead with the Congress for more money to support RD&D efforts, we live in the shadow of Gramm-Rudman. So we must make the most of the limited Federal dollars that we have.

From my perspective, this is one of the most important challenges that OERI has to face in the coming years. Our ability to meet it depends largely upon how much progress we continue to make toward a longstanding OERI goal, which is making OERI less an array of discrete, independently operating units and more of a unified, coherent organization, a coordinated, integrated RD&D *system*.

To achieve that, OERI and its institutional projects must continue to increase our efforts in three areas: communication, cooperation, and collaboration. You might call this OERI's version of the three Cs. We all stand to benefit from more communication, cooperation and collaboration. I think we all recognize that. This year, as indicated in Elizabeth Payer's background paper, which I think most of you received, Elizabeth says that more than 158 different organizations are receiving a share of OERI's RD&D budget, to the tune of about $55 million.

The mission and goals of these various organizations carry them into territories that often overlap. Let's look at early childhood, for example. In Information Services in OERI we have a clearinghouse that collects and disseminates information on early childhood education. In the Office of Research, we have a new Center for Research on the Education of Disadvantaged Students. Intervention in preschool years is critical to *any* comprehensive effort to help disadvantaged students, and so there ought to be information and ideas flowing between staff at the clearinghouses and staff at the Center.

[We] must continue to increase our efforts in three areas: communication, cooperation, and collaboration. You might call this OERI's version of the three Cs.

There are a number of other early childhood projects planned or under way in OERI. For instance, through our Fund for Innovation in Education, formerly known as the Secretary's Discretionary Fund in the FIRST program, we are planning a competition for projects in early childhood education.

This summer, Programs for the Improvement of Practice (PIP) will host a miniconference to gather advice from experts, advice that will help guide an upcoming RFP for early childhood drug prevention curriculum materials. PIP's Urban Superintendents Network is assembling a report on the role of public schools in early childhood intervention. Six of the nine regional labs, according to the information I have, have been involved in an early childhood project of some kind since 1986. Also in PIP, the NDN has about 30 projects aimed at children under five. The issue after the next publication of *Youth Indicators*, about a year from now, will include data on children under five for the first time. That is a joint publication of PIP and NCES. Library Programs supports a number of literacy projects aimed at preschool children. There are other early childhood-related activities going on in OERI.

My point is to begin to invite people to think about the three Cs with reference to a variety of things that we are doing. The three Cs should not be limited to just topical or thematic approaches either. That is the kind of approach that I have highlighted in talking about early childhood education. Elizabeth points out that one can begin to talk about groupings around general functions such as "knowledge generation" or "knowledge dissemination," around specific activities, around a host of other sorts of approaches that are also possible. We probably all agree that with reference to the three Cs there ought to be more of it. Right now we have a special and unique window of opportunity, especially as OERI approaches the recompetition of the labs and the centers.

I have tried to lay out for you quickly what I see as an emerging trend, a trend that coincides with a topic that is on your mind. I have tried to quickly give you an example of a topic area that OERI has been working on for some time and has a variety of activities blossoming. And I have tried to suggest that perhaps as these two things begin to intersect, we need to think a little bit more how the so-called three Cs relate to both of these issues.

John Hollifield

Associate Director for Dissemination and Outreach
Center for Research on Elementary and Middle Schools
Johns Hopkins University

I am the Associate Director of the Center for Research on Elementary and Middle Schools, basically the Associate Director for the new Center on Research on the Disadvantaged. We have two centers at Johns Hopkins. I have been in the Center for 19 years now. I disseminate information and research products. That is my responsibility. After 19 years I am still enthusiastic and still disseminating.

For over 19 years we have collaborated extensively with ERIC, other centers, regional labs, NDN, OERI, and with NAESP, ASCD, NEA, NASSP—you can make up a random acronym and we have probably worked with it. I have a three-page list of our collaborative activities with OERI, NDN, and so on. I am not going to talk about that. Anyone who wants a copy can have it. I think it could serve as a model for some of the kinds of collaborative activities that can take place. What I really want to do is talk a bit about the R&D system and my view after 19 years in it of how things might be integrated.

The elements include OERI, R&D centers, regional labs, ERIC clearinghouses, and the NDN. But these all have to work in conjunction with one another and in conjunction with national education associations, individual researchers, multiple special interest groups, and all of this should be pulling together to improve American education.

To elaborate a little, OERI should fund institutional research, development, and dissemination but must have the latitude to externally fund special interest projects, conduct in-house special interest projects, fund field-initiated research by individual researchers, and if the system is to be a system, somebody must coordinate, and OERI is the natural selection for that. R&D centers should conduct basic research and development, but their mission areas should determine the nature of that R&D. Some centers, depending on the mission area, should be devoted almost exclusively to basic research.

Others, working from a stronger existing research base, will be more heavily into development, implementation, and evaluation.

. . . labs will not look alike. They will all look like what they need to be in order to serve their regions most effectively.

Some centers, like the Hopkins centers, will be what we call full service centers. We take the results of research all the way through development into institutionalization in schools and districts because we want to get that bottom line, which is improved student learning.

The regional laboratories should continue to assess the R&D needs of their regions and respond to those needs with R&D information and assistance. But the labs should also develop and maintain the capacity to conduct research projects and programs as needed in their regions. Lab researchers should be working hand in hand with innovative schools and districts. They should be helping to tailor existing research to the innovative efforts of the schools, implement programmatic efforts, evaluate results, and provide needed further research as programs progress.

There are questions now whether labs should be involved in research, whether they should work directly with schools, whether they should be more entrepreneurial in their approach to seeking funding from sources other than OERI. I say the answers to these questions are simply yes, yes, and yes, all in the name of acquiring and maintaining the full

capacity to meet the needs of the regions. Given this model, labs will not look alike. They will all look like what they need to be in order to serve their regions most effectively.

The National Diffusion Network, one of my favorites, is a system of State facilitators, funded developer demonstrators, and a program effectiveness panel to certify effective projects. The NDN offers a precise model for dissemination and use of research-based R&D. And it is even a model with some evidence that it works in terms of improving student achievement.

In an integrated system, the R&D centers and the regional labs would avail themselves fully of the NDN dissemination capability by channeling their research-based school improvement products into the NDN as one major avenue of dissemination. This takes some work. The products and practices must be experimentally proved to be effective. But this is work that labs and centers should be doing as a matter of course.

Right now only one regional laboratory, the defunct CEMREL, and one R&D center, which is the Hopkins Center, have put research-based products into the National Diffusion Network. This is a sad state of affairs. Centers and labs need to engage more in research and development that produces proven effective programs and practices for use by schools and districts, and they should move these programs and practices into the NDN. As part of this, in my opinion, the NDN is structured to improve schools by working with schools to install R&D-based products, and there is no need to add the dissemination of research information to the NDN. We have ERIC to do that.

And ERIC. I think one real need here is to let ERIC be ERIC, to let ERIC concentrate on its mission of information dissemination and not dilute this effort with lists of additional tasks. ERIC's primary purpose is to maintain a national repository of up-to-date education research information and provide that information in various forms to users. ERIC accomplishes this purpose well. The ERIC clearinghouses can document that their services are used extensively, and labs and centers contribute to that accomplishment by providing the ERIC system with education information.

But what else is expected? You can tell what the expectations are by the criticisms that ERIC gets. First, not enough people use ERIC, so the expectation is that ERIC must promote more use of the system. The second criticism is that the information is not always the best information. So the expectation is that ERIC must exercise better quality control. Third, the information is not in very useful forms. So the expectation is that ERIC must do syntheses, analyses, and summaries that make the information more useful.

These are all legitimate. Most clearinghouses are doing them to some extent, and much of what they are doing is in collaboration with labs and centers. In the past 2 years the Hopkins center has produced two ERIC digests and two monographs especially for the ERIC Elementary Education Clearinghouse, which is one of our partners and is a natural alliance.

There is a fourth criticism of ERIC that bothers me, and this is the criticism that ERIC information is not well used to improve education. The expectation then is that ERIC must therefore not only maintain and provide education information but also develop mechanisms and procedures to ensure effective use of the information. The criticism that we are not making effective use of education information is justified in general but is not justified as a criticism of ERIC. No other library system is held responsible for proper and effective use of its information, and ERIC should not be either.

I need to belabor this, because I like to belabor. The effective use of research information is a whole other ball game. I would contend that the use of research information from ERIC and from labs and centers has often contributed to school improvement. But if you ask me to document that, I am going to run and hide somewhere. I would like to see somewhere in the near future an extensively funded effort—scratch the "extensively"—just a funded effort to produce such documentation, to provide some evidence that dissemination of research findings through ERIC, the labs, the centers has definitely contributed to school improvement.

We need hard evidence that the dissemination of research information has an impact on the school improvement bottom line: improved student learning.

As an example, our center has extensively disseminated research about the effects of ability grouping in elementary schools. I make the claim that this research has been valuable for schools and districts in organizing their instruction. I have no evidence for this claim. Other centers and the labs and ERIC have similar experiences. We need hard evidence that the dissemination of research information has an impact on the school improvement bottom line: improved student learning. Such evidence, when gathered, will strengthen the entire R&D enterprise.

I have left a lot of issues for discussion. I touched on an expanded role of centers and labs in working intensively with districts and schools. But what other sets of institutional projects might be created to do that kind of work and what are the specific roles in this integrated system for the numerous education associations and organizations and special interest groups? There are a lot of other questions. A final question: Does all this require more funding, and where is that funding going to come from?

David Crandall

Director, Laboratory for Educational Improvement of the Northeast and Islands
The Network, Andover, Massachusetts

I hope my remarks will provide the basis for conversation among yourselves and among us later today and over the next year or so. This symposium is about one of the more important and perplexing and persistent problems that we face in the R&D world.

I especially resonate to Bruno's noting that we do have a window of opportunity. I wish it weren't a window that was all that was left of the building we had constructed between the late 1960s and the late 1970s, but I think the fact that there is at least a window left and that it is open is a very encouraging sign and I appreciate your acknowledging that. I am especially grateful to Sharon for the invitation. She is smart enough to figure out how to get "three-fers," which I am usually not. White, male, Anglo-Saxon Protestants rarely get that kind of a check mark. But I am here as a lab director; I am here as the head of an organization that houses a NDN facilitator and did a developer demonstrator, and one of OERI's "centerettes," as we call them.

And you have a special treat. It will be interesting whether you see the differences. You have, in my simple formulation, one of the veteran centers, Johns Hopkins, one of the new centers, Susan's at Rutgers, and a representative of one of the little weensy centerettes that were sort of the leftovers when the big guys got carved up. So you have an array of people who come at the research end of this enterprise in different ways.

I come at this having spent 20 years involved in endeavors that have knowledge utilization in schools as their ultimate intention. When I started The Network in 1969 it was with the idea that the wondrous knowledge captured on those little tiny microfiche things should somehow get into the heads of school people and that an intermediary structure was needed.

That image has guided our work over the last 20 years as we have moved through successive engagements with Federal support at each level of enterprise, from the practice improvement level, directly working in schools, the policy advice level, through research studies.

We have been involved in the NDN since 1974. It won't come as any surprise to you that I am a fan of the NDN. My support and belief in that endeavor was reinforced as a result of a study that I directed in the late 1970s, which was the last major study of Federal strategies for improving education, and it demonstrated that indeed the NDN was a successful strategy.

That it has persisted and flourished, albeit at the same level of funding as all of the rest of us, is, I think, a tribute to that. That ERIC has persisted, that the clearinghouses still exist, that the regional labs exist, that the centers exist, it seems to me, is a fact of life that it would be nice if some of our "friends" acknowledged and built upon as opposed to lamented and attempted to alter.

As that window is held open by those of us who are optimistic, I hope that we can row the boat with our oars going in the same direction for once. That may be something the new OERI leaders should ponder as they take up new responsibilities. I can tell you more about what happens when boats go around in circles. They tend to run into things and often sink. This one hasn't sunk yet. So there is hope.

[W]ithout the intermediaries it is tough to move the information from the archive into action.

We did the last major study of ERIC. Among its findings were that the people in the process were pretty important, that without the intermediaries it is tough to move the information from the archive into action. We disregard those kinds of things at our peril. I am not suggesting that you aren't aware of these things. I am just reinforcing them in the context of what will be my subsequent remarks.

I have the additional good fortune of heading the regional lab that serves the area of Congressman Major Owens of Brooklyn. He is the gentleman who oversees OERI, our sponsor. So we are especially attentive to his perspectives. When he visited us with his staff a year or so ago, after we had finished telling him what we were up to, what we were doing, what we weren't doing and why we couldn't do it—that's where we pitched the "we need more money"—he actually initiated an intelligent discussion about ERIC. I was very encouraged by that. He also insisted before we left to see our "library." I explained that we didn't have a library; we had a resource center; and that it was a weensy one because we didn't have any special funding for that. But he was interested in looking at that and in looking at the resources that we had that allowed us access to the ERIC resource, both paper and through our microcomputer hookups.

That there is a fan and a supporter there is again no news to you. He's a fan of a lot of things, but let's put them under the umbrella of R&D, because I think he is one of our supporters. His special concerns for the children in our inner cities pose a special challenge to us. I am not so optimistic about that one, frankly, given the current level of funding, but I think we can make a substantial dent in that, especially if we can make some inroads on the collaboration front.

Turning to that briefly, let me share with you some notions that I think give us a handle on why we have a problem. Some of you have heard me say this before. Collaboration is not a natural act and the positions that you have to assume are not always comfortable. Most of us are not into pain, and collaboration the way that I mean it sometimes involves passing through the pain period before you can get to the pleasure.

But for people who have gotten there, I think we can say that it is worth it. We are talking about collaboration among institutional or organizational entities: labs, centers, the components of the National Diffusion Network, ERIC. Those entities have, as is no news to you, quite different audiences that they emphasize and quite different agendas that they pursue as a consequence of their mission strategy and preferred tactics.

If you think about three notions, I think you will see where some of the problem comes from. Imagine a circle that has here "generality" and over here "simplicity" and down here somewhere "accuracy." Those are concepts to which I think it is fair to attach the activities of labs, centers, et cetera. For example, the research endeavor, is focused on generality, typically. Those of us who work directly in schools know that what they want to know is how accurate it is for them, the single case: "Well, it doesn't fit our circumstances; it's too abstract, it's too general."

Those three concepts arrayed around a circle, it is suggested, constitute a condition of impossibility: You can't get there from here. That is what we are trying to do when we try to bring research into practice. That formulation, set down by a Canadian named Thorngate 10-plus years ago, helps us understand why this is a persistent problem. It is very tough to move research into practice because the nature of it—research—is very different from the nature of it—practice. But as I said, I am an optimist.

Here are the steps that I would suggest we consider to continue to close the gap, as I think we have. One, I think we need to declare a belief in the special value of research and development and its outcomes. That's a value statement. It is okay to make them sometimes. It is important that they be affirmed. And I don't think that they have been.

We are talking about a belief that I think we all share, at least in part, that the outcomes of our work are qualitatively better than those that are pursued in a less systematic, less organized fashion. That is not to say that there aren't other kinds of knowledge that are equally good; we're among those who are advocates of carefully developed practice-generated knowledge as well as conventional R&D knowledge. But that is a value statement. We have had trouble demonstrating, as John noted, the bottom line payoff of that. It doesn't change the fact that we have to declare it as a value.

School people don't want it easy, but they need it simple. That doesn't mean simplistic; it just means simple.

I think we need to acknowledge the continued need for some sort of a translation or development or repackaging function, whatever you want to call it, and the fact that the people out there who are the folks that we hope will eventually use R&D need help. School people don't want it easy, but they need it simple. That doesn't mean simplistic; it just means simple. We are inundated on a daily basis with hundreds and hundreds of teachers who want to do better for the kids that they are concerned with. They do not know how and they are not in settings that help them. We are part of the support structure that potentially could.

So it seems to me that after we declare our beliefs in those kinds of things, including at the Federal level, we maybe could make the pitch that in the spirit of increasing our international competitiveness maybe we need to change some of our national competitiveness practices.

We have an infrastructure here. Every 5 years, 3 years, or whatever, if the current cycle persists, we consider breaking it all down and building it over again. That's dumb, in my opinion. I think the elements that have stood the test of more than two decades—the clearinghouses, the regional laboratories, the State facilitators of the NDN, the parts that, it can be quite reasonably and persuasively argued, should be permanent parts of the infrastructure as institutional entities—should be preserved in that fashion.

We ought to find a way of cracking the nut on that part of our common enterprise. What they do, what they are focused on, and so forth and so on, is a different issue. But it is as if you are going to tear up the roads, the bridges, and the sewers every 5 years and then ponder how to best move people and trash. It doesn't make any sense. I think that it would be possible to crack that nut while still answering the call for necessary competition.

Once we do that, then I think it is necessary to affirm and attack with adequate resources the persistent problems that face our educational system. Separate from whether they are the ones you would agree on, the problems of the disadvantaged, the underclass, the at-risk, et cetera, however you package that one, it seems like it is with us and is going to be with us for a while. That warrants special kinds of attention. Whether it is by a super center of the sort John referred to as a full service center, I don't know, but I would support that. You could find fans for classifying science, math and technology in that category as well. I think a lot of people would say that's a place where we have a persistent national problem. And it is going to last longer than 5 years, folks, and require more resources.

I have already noted that once you have made some of these moves, you ought to be able to stabilize the practice improvement infrastructure, which for me at this point is the labs, the NDN facilitators, and the ERIC clearinghouses. Those institutions you don't move around unless they do something that is really outrageous in their performance, and there are a lot of ways to handle that one.

Then we get to the collaboration part. So far this has been easy. Now you have to regularize exchange relationships between those entities that go beyond the superficial. Bruno noted his three Cs of communication, cooperation, and collaboration. I would put those in a hierarchy and stick coordination in the middle right after cooperate. I think we need to understand when we are doing each of those things they

are not the same thing. Collaborating is not the same as cooperating; it's not the same as communicating.

Those of you who have been around for a long while, there was a thing called the Dissemination Analysis Group, DAG. In the late 1970s it sponsored two national forums. They brought together all of the players. It has been over 10 years since there was such an effort. One of the things that the DAG put together was a definition of dissemination that many of us seem to have forgotten. It moved from "spread" to "exchange" to "choice" to "implementation." Implementation is the last and the toughest stage; it's the most complicated and incorporates all the foregoing. The three or four Cs of communication to collaboration are the same sort of hierarchy. You need to understand what you are doing when you are at each of those stages and that they relate but they are not the same.

Paying attention to those distinctions and reinforcing those relationships is a special responsibility that I think it would be possible and desirable for OERI or its successor to organize, to facilitate. They could reinforce that. There currently are very few organizational incentives for the kind of exchange that goes beyond simply licking the stamp and sticking it on your latest report and firing it out in the mail. Yes, individuals relate in different ways, but the organizational entities don't.

DAG put together . . . a definition of dissemination that many of us seem to have forgotten. It moved from "spread" to "exchange" to "choice" to "implementation." Implementation is the last and the toughest stage . . .

I'm a fan of forcing that, by the way. I think that when people don't want to do something, sometimes you have to help them to see that there is an optimal way. We have tried it once, and it hasn't worked, but I think we should try it again. So OERI, I would advise, could play that facilitating role. It is combining the forcing function with the friendly support in facilitation and avoiding the third F, fouling it up, which there is a terrible tendency, I'm afraid, for well-intentioned people to do.

And if we can get our friends the Feds to stay out of the road for a while on some of these things, we will all be better off. We need time to get our own acts together, whether it be in networks or subnetworks of like-minded people or umbrella organizations. Yes, we know you, OERI staff, want to be involved. We want you to be involved, but for some of these moments we need our own time for our own processing. We need to be able to invite you, not have you invite yourself. At the same time, I think you ought to require us to sit down and knock our heads together on some stuff and do that in some ways that haven't been tried yet.

Then I would go back to what I said before and suggest that some of the communications that you might have that would be facilitating to our overall mission would be directed to the advisory boards, governing boards, and other of our oversight entities. We would be helped by messages from OERI that reinforce the beliefs that I noted before, that R&D is special knowledge, that it is what these institutions are about, that it is what we are about together, but that it is a long-term problem. We are going to get on with it and not just be distracted by the short-term stuff of today's hot topic. We need some help on that score. You guys can give it to us. And we can give it to each other. I look forward to being part of that process.

Susan Fuhrman

Director, Center for Policy Research in Education
Eagleton Institute of Politics
Rutgers University

I appreciate the invitation and the opportunity to speak to such a distinguished group. I especially like being able to follow John and David instead of preceding them, because now I can agree and disagree and not forge out ahead on my own. I also appreciate the background papers that were prepared for this meeting. I thought that the summary of the September working group was most accurate and very helpful and the background paper specifically for this meeting was particularly useful.

I especially like the caveat not to think of collaboration for its own sake but to keep our eye focused on Bruno's bottom line, on John's improving schools, on RD&D systems, on collaboration for the sake of improving the efficiency, the quality, the impact of educational research and development.

Of course it is not necessarily so that collaboration would have such an effect. It may in fact take place for its own sake without an eye on the bottom line, and that is what it is really important to be careful of. So I would like to talk for a few minutes about collaboration with that caveat in mind and then for a few minutes about improving the impact of RD&D, about the bottom line, about activities that may be achieved without thinking specifically about collaboration.

I have four points about how to conduct collaboration in the service of improved RD&D. First, it occurs naturally. John's center, which has been in existence for 19 years, collaborates. Our center collaborates. We conduct research with other centers; we involve researchers from centers and labs in meetings that we host; and we have cosponsored workshops with regional labs.

It occurs when people perceive common interests, when they know each other and really get to know each other in face-to-face, personal interaction, and they think that they can work together. It occurs among OERI-supported projects even when OERI is not footing the bill. We are

hopefully about to receive a grant from NSF with another OERI-funded center. So here is collaboration occurring on its own and not because anybody is making us do it, but because we thought we could work together in useful effort.

I disagree with David. I don't think that such collaboration needs or requires incentives from OERI to take place. Fund setasides and special competitions might in fact result in make-work collaborative projects and not necessarily in the kind of collaborative projects that keep their eye on the bottom line and that are in the service of improved RD&D.

The same problem would occur with rewarding collaboration per se. It is possible that the same resources could have been used better by an individual institutional project. Collaboration in and of itself should not be rewarded or encouraged. It's only collaboration in the service of improvement, and I am afraid that special competitions centered around collaboration rather than the goal of improvement, however you get there, might send the wrong signal.

I do think, however, that OERI can facilitate collaboration in a number of ways. It can certainly provide occasions for those of us in the system to get together and to get to know each other and to forge the kind of relationships that lead to working relationships.

Collaboration in and of itself should not be rewarded or encouraged. It's only collaboration in the service of improvement . . .

It can increase its information-sharing activities and enhance them. Our liaison calls us up frequently and says did you know such and such a center was doing X or Y, and maybe you ought to get in touch with so and so. I am sure that other liaisons do the same. We need more of that—the databases, the reports, the opportunities—to find out what we are all doing.

And I think OERI can remove barriers where they exist to sharing data or to sharing work in progress because of confidentiality or whatever other problems might stand in the way. I think OERI needs to think about the comparative advantage of each type of institutional project much in the way that John suggests and what each institutional project can best do.

Speaking from the center's point of view, I agree with John that some of us consider ourselves full service centers. We certainly do. We think of dissemination and technical assistance as part of our mission. Not everyone does. But even so, our resources are not ample enough to permit the kind of extensive dissemination and technical assistance we would like to do and we would very much like to work with others to do that more effectively. If there were ways to establish routine mechanisms for other institutional projects to assist us in dissemination, to assist us in preparing briefs, and in distributing policy briefs, to assist us in disseminating our reports, we would certainly welcome it.

Speaking for our center, we would like to continue to publish our own reports, to maintain quality control over them. We would like to do our own face-to-face dissemination. We believe there is no substitute for the people who do the research talking about it to the research clients, and it is very helpful to have contact with the field in dissemination and setting one's own research agenda and testing the generalizability of findings. So we would not give that up at all. But we would certainly welcome assistance from any other type of institutional project in synthesizing information and in distributing it more widely and finding ways to magnify our impact and to share the resource that such spread requires.

Turning to other ways to improve RD&D besides collaboration among institutional projects, I think that OERI can facilitate one of the kinds of collaboration that John was talking about between OERI-funded projects and the field, and that is to work with associations who are among the most important purveyors of research information.

We work closely with policymaker associations, and I know other centers work closely with practitioner associations. We spend our own resources to convene these folks and to keep in close contact with them. It pays off. It pays off because it helps us to set our research agenda, to meet the needs of their constituents, the same constituents that we serve. It helps because they pick up and publish some of our things in brief reports or even in report form. And it helps because we end up sometimes in joint research projects just as we have with other centers when we know the people involved. For example, we are currently involved in a joint research project with the National Governors' Association and just completed one with them a brief while ago.

I think OERI can encourage links with clients and clients' groups in mission statements and in continuing liaison work with centers. I think OERI can provide opportunity for client groups to meet and hear center researchers, occasions for hearing and interacting with researchers from a variety of centers, and facilitate that kind of interaction which is really important to getting the research to the clients.

Finally, I think OERI can work with other government agencies and collaborate itself to enhance RD&D. For example, working with NSF in the areas of math and science could certainly improve the resources and the integration of projects addressed to improving math and science education.

I think it is important to reinforce the background paper's notion that collaboration for its own sake may not lead to improvement. It may lead to well-intentioned but not particularly promising work and not the best use of resources, and at the worst, it may lead to make-work just for the sake of collaboration. Focusing on collaboration among institutional projects may limit thinking about other ways to improve RD&D, such as working with client-based

associations. Collaboration is important when it keeps its eye on the bottom line, and I think there are a lot of ways to do that.

Christopher Cross

Vice Chairman, Macro Systems, Inc.
Silver Spring, Maryland

I am going to depart a bit from commenting directly on the presentations we have heard this morning and raise what are, I believe, some other important issues to consider in today's general topic and the general topic of education dissemination and information.

As Bruno mentioned, I spent some time on the Hill; I also worked on education policy with the Department of HEW in the early 1970s, before there was a Department of Education. For the past few years, having been outside of the government, I have tried to look from the viewpoint of the consumer and the user, at the enormous array and variety of ways in which the Federal Government tries to provide information to people out in the field. For example, I think in terms of the school my son attends, and I wonder how the teachers and the staff members can possibly comprehend and deal with the complexity of the current system.

One of the things that we really must do is to look at this system from the viewpoint of that consumer and that user, recognizing there are other consumers and users as well. There are school board people, and administrators, and researchers, and policymakers in the States and in the Federal Government. I think we need to look at the system from their perspective.

For example, I would advocate that the Department, through ERIC or OERI or some other manner, consider actually asking some of these consumers to participate in a focus group. Although this may not be the right terminology, it would be a similar group where we could really try to understand from listening to these people what information they need, how they would go about trying to get it, and what barriers exist in the current system that prevent them from getting the information they need. I wonder whether we have made the system too complex and have created a situation that is detrimental to the essential goal which all of us have, and that is to try to improve the education enterprise.

Bruno mentioned that I spent some of my time in the last 2 years working with OERI, with PIP, first with Milt Goldberg and now with Nelson Smith, looking at what the regional educational laboratories have been doing and will be doing in terms of the recompetition. One of the things that we did in our initial report, which was about a year and a half ago, and have repeated in this report, is to also look beyond OERI. The conference here this morning and the report that Bruno mentioned, which was done in preparation for this conference really center upon OERI. And that is understandable. That is where the people who are involved in this enterprise reside, both inside the Department and outside it.

But if we look at the array and the variety of other things that exist that go beyond ERIC and NDN and the labs and the centers and all of those things that we have already talked about, we must also, I think, step back and include things like the Chapter I centers, the special education centers, the bilingual centers, the drug abuse centers, the vocational education research activities. Susan mentioned NSF. There is also the arts endowment, the humanities endowment, and other providers of information.

If we are going to have collaboration, cooperation, and communication, we must step back and examine that whole array of things. It has been now almost 25 years since the Elementary and Secondary Education Act was first passed. That Act and the Cooperative Research Act created the original labs and centers; and then Title I was created. In that period, particularly from the mid-1960s to the early 1970s (with a little bit thrown in by the most recent Congress) a variety of other providers and other institutions have been created in the research, development, and dissemination world.

[T]he time has come . . . to step back and look at the whole varied enterprise of research, development, and dissemination and to ask the question: What needs to be done now?

I hope I am not giving away too much of what the Laboratory Review Panel has said in its report. Although the idea did not originate with us, one of the things we are advocating and that I personally feel very strongly about is that the time has come for the Department, for the Federal Government, and for the profession to step back and look at the whole varied enterprise of research, development, and dissemination and to ask the question: What needs to be done now?

In the mid-1960s, when these original institutions were created, most of these groups were new; there was nothing else in existence. We now have a wide variety of other organizations, of other providers, of other needs that are in the system. As we go into the 1990s and into the 21st century, I think it may be time to call for something like a National Academy of Sciences/National Research Council panel to look at this enterprise and to think it through and come back to the Department, and to the Federal Government as a whole, with some recommendations for organizing the RD&D system. The old answers may not be sufficient any more, and in fact we may need to really examine some of our assumptions about why and how the current situation has come to be.

I also think we need to examine the fact that there are different users, different consumers out there. One of the things that may have happened over the years is that we may have designed a system that is appropriate for sophisticated users, users that tend to be more like us, people who are in the research community and the policy community, and we may have forgotten that there are many people out there who simply need basic information. They may need to know from Emerson and the Center staff some basic statistics and data about what exists in the way of teacher preparation, enrollment, what is being spent, and what the projections are in terms of forthcoming enrollment and the birth rate and that sort of thing. There is probably another level of users or consumers who are a little more sophisticated, and finally there are the most sophisticated users, the people that we probably deal with most often.

Because different computers are suitable for different users, your children, if they are in elementary school, may be using an Apple II or something of that sort. As parents, you may be involved in a more sophisticated system; you may use or have access to an IBM mainframe computer. In the same vein, we need to consider how to design different levels of getting into the information system.

I would also suggest that from the viewpoint of the Department we need to build in dissemination and communications as a fundamental part of all the research grants that are given out, of all the contracts that are awarded, and that there needs to be then some way to make use of that information and data. It is just not good enough to say at the end of the contract or the end of the grant that you have to turn over your data and it has to be in machine readable form and all that; the point is, what are we going to do with it? Some things need to be thought through about how the Department is going to respond to its stewardship of that kind of information and data, how it is going to make it available, and what does that responsibility mean.

My final point is that I think we also need to recognize the fact that the procurement mechanisms that have existed even longer than the labs, the centers, and the ERIC system may not really be appropriate for the kind of relationship that needs to exist between the Federal Government and institutions like your own. The constraints that are there in contracts, the lack of accountability that may be there in the grant mechanism, the protections that are there in the contracts with the providers, the unilateral nature of a grant—all of these things really beg the issue about the unique kind of relationship that exists between the Federal Government and institutions that are providing the kind of services we have talked about here today.

That is certainly something that can't be solved by this group, but it can be solved if the Congress becomes an advocate and the Executive Branch begins looking for new mechanisms to do the job. I think that is another point which I believe needs to be looked at in terms of the long view.

As you can see, I haven't talked very much about the others and their presentations this morning. I don't disagree with any of them; I think the points they have made are very good. I would like to thank those who provided the materials for today's session, Sharon and her staff and others. I hope it has been helpful. I certainly found it very informative.

Willis D. Hawley

Dean, Peabody College
Vanderbilt University

It is a pleasure to be here. I am going to try to do two things. I want to share with you some general principles or some bases for collaboration. Secondly, I want to comment on the nature of the research and development system we have been talking about.

Hopefully these two sets of comments will overlap with what the previous speakers have said. This is what is called in the trade a dump, which is to say I am going to put a lot of information on the table, but we are all used to that.

I want to suggest five or six principles and give you some examples how each of those principles might apply to the development of productive collaboration. Presumably, if these are really principles, they are heuristic and therefore would lead to many more ideas. That is for you to judge.

What are the bases for collaboration? Number one, common interest. We have talked a lot here today about priorities. One might expect this common interest to be student learning. But in fact, if you listen carefully, those commenting today didn't say student learning. They said school improvement or the equivalent. My judgment is there is a big difference between student learning and school improvement. And if you don't believe that, think about the debate today about restructuring. Very little of it has to do with direct concern for student learning, although the assumption is that restructuring will somehow benefit students.

I don't want to get off into that set of issues, but I think we need to be precise and we need to know what we are talking about when we say learning. If everybody, in fact, had this set of concerns and saw a need to justify restructuring by its contributions to student learning, we would be better off.

Related to that is the idea that researchers often don't see a relationship between their role as researchers and the utilization of knowledge in the field. That is to say, researchers usually say, and I think most of us believe, that we are in this to enhance student performance. But the model we have in our heads is a linear one; that is, the knowledge that is generated is "disseminated" and lands out there somewhere and somebody does something with it. Meanwhile, we go on about our business.

But there is another model, a model which we see in some other fields—medicine is a good example—in which the implementation process itself is part of the generation of new knowledge and the generation of a set of research questions

that need to be developed. In my particular institution we happen to have a basic research enterprise heavily funded by the Federal Government, though not this Department of Education, thank God! (Not because I don't love this agency, but because the NIH has a lot more money.) In medicine, the relationship between research and practice is seen as reciprocal and this provides the rationale for collaboration.

The second basis for collaboration is trust. The actors have to trust one another. Part of this has to do with the perception that everybody is engaged in quality activity. We will say we are. But, in fact, there is a lot of low quality activity that passes for research and development.

There is too much research already; there is too little good research.

The ERIC system, in placing emphasis on the volume of work that is done, diminishes the quality of work that is done. You know very well that when you recompete these enterprises, the volume of activity will be weighted heavily. There is too much research already; there is too little good research. But it is hard for practitioners to separate the weak from the good, given the time they have to consider the information. Our unwillingness to be more selective and critical undermines knowledge utilization because it undermines the faith one can have in the research.

Another principle of collaboration is that perception of mutual benefit is essential. Part of this will derive from a shared concern about outcomes, but it also depends on what our mission is perceived to be. Why, for example, should the centers and labs collaborate? There is involved here, too, something that is called the norm of reciprocity that is important. That simply means that collaboration occurs when there is the perception of equal contributions to a collaborative activity.

In the world of academia, there is a hierarchy of the values placed on different aspects of knowledge production and use, as you well know. At least among some people in the research community, research itself is the highest value. Dissemination is usually not highly regarded. It is a necessary thing we've got to do, but it is not high tech; it's not really good stuff; it doesn't require the same quality of mind; it doesn't need tenure, et cetera.

Part of the problem, I think, is we have not thought through how we could create kind of interdependencies that would lead to equal status. In my judgment, I think it is important for the labs to have a role in the research enterprise because absent that role they will be seen as second class citizens vis-a-vis the research community. None of us will say that in public, but we, in fact, perceive it. In talking to some of my friends in the labs, I think they perceive that their limited research activity has undermined their status.

A fourth general proposition about collaboration is the need for a common language. For example, the word "research" is a badly abused notion; "learning" is something that means almost everything; and "knowledge utilization" itself is, at least, a sloppy term.

It seems to me there are, at least, three very important distinctions to be made. One is the effort by practitioners and policymakers and other researchers to use the information. The second is the adoption of that information. The third and most important, probably, is implementation. But we can't hold the knowledge production process itself accountable for implementation except insofar as its role is to study implementation. On the other hand, we can hold the process accountable for efforts on the part of practitioners to utilize that information.

A fifth basis for collaboration is what I might call common constructs. I have had the opportunity lately to read a lot of research on why people use knowledge. I have come to be impressed by a body of research, relatively new, I think, which explains this in terms of "explanation-based decision making." That is, people have in their heads an explanation for how the world works. When information they are provided with fits that explanation, they use it to elaborate their world view. If it does not, they dismiss that information or modify it. Sometimes, this willingness to use information is explained in terms of "value fit." But more than values is involved. It is also their understanding of what works. So it would be very helpful if we started talking in terms of some kind of causal understanding of sources of student learnings.

Incidentally, I reviewed many of the models that were in the proposals that went to OERI during the Center competitions last time. They have a different conception of the fundamental processes by which children learn. This conceptual confusion is an important barrier to our ability to communicate and build a solid research base upon which to rest changes in policy and practice.

From my point of view, the way this particular group should be thinking building models is in terms of how policymakers and practitioners think. They grasp for certain kinds of explanations, because those are things with which they can deal. For example, policymakers and practitioners are not interested in social class per se. They can't manipulate social class.

We should think about ways to enhance the self-interest that individuals have in collaborating.

The final basis for collaboration is self-interest. We should think about ways to enhance the self-interest that individuals have in collaborating. Collaboration is not a natural act for most people. It may be for some of you because you are so committed to it. But, in fact, collaboration is a costly activity.

Let me make a few comments on the Federal R&D system. I owe some of these thoughts, let me acknowledge, to Art Sheekey, who has been my tutor for more years than I want to remember. Let me make again five or six quick points. There are important missing pieces to the system itself. One of these relates to how we conceptualize the system. So my first point has to do with the missing piece of the system, which is to see the knowledge utilization part feeding back to the research part. There are ways to do that.

But a more important thing I want to emphasize is that there are three reasons, it seems to me, why people who are practitioners really want information. One is that they are very confident and they have had some success experiences in the past using information. This type of person becomes an information junkie and they see that as part of their own self-interest. They like to talk about cutting edge activity, and, to be cutting edge, it is helpful to know the latest research and a few concepts to throw around.

Another knowledge-user is the person who is desperate. For this user, any information will do. It doesn't matter whether it is good or not so long as the information kind of fits the immediate need of the potential user. The third reason people use information is that this is their role. Those whose job it is to acquire information and to use it are relatively few in number. If you think about school systems, for example, who is it in a school system whose job it is to utilize research, especially at the school level?.

This limitation on the use of knowledge is important and it could be addressed by changing the role of librarians. Their job has been to provide learning resources for students. But, why couldn't they also provide information to teachers to help teachers teach and to help school administrators facilitate the work of teachers? It is interesting to note that the American Library Association has endorsed this general idea, but having tried to implement such a program in my own university to prepare libraries accordingly, I can tell you the world is not yet ready for it.

A second thing we should do to strengthen the R&D system is to rethink teacher and administrator training, because those programs are increasingly organized around the idea of enhancing the craftsmanship of people in the field. They are big on internships, practical experience, and above all, relevance. The point is that there is little emphasis in these programs on knowledge utilization and problem solving. Until we attend to the predispositions and capacity of practitioners and policymakers to be information users, we will not have a market among the most important of our consumers.

Let me use the report that you all have to make the last point. The report shows the organization without showing schools and policymakers. The point I want to make is that when we think about the Federal R&D *system*, we should think about its clients as part of the organization, an idea that Chester Barnard tried to impress upon organizational theorists in business schools some 50 years ago.

The third point is that the Federal R&D system needs to accommodate to the new role and capacity of the States. I know that is an issue that you folks have thought about some, but it has big implications not only for the role of the labs, but also the role of the ERIC system. We need to think about and anticipate radical restructuring of the entire R&D system. Some of us have advocated the establishment of a National Institute for Urban Education. I had an opportunity to talk with the Under Secretary about this last night. There is a lot of group interest in this proposal.

We need to think about and anticipate radical restructuring of the entire R&D system.

Some of us see this as a stalking horse for a reconceptualization of the entire system. I certainly think we are not ready to move toward the National Institutes of Education, but such a proposal does try to accommodate to the need to better integrate the elements of the R&D system, including ERIC, so that the system can be more helpful in addressing significant problems.

Finally, let me suggest that the ERIC system needs to be realigned. I think about this in two ways. It can either realign with the producers or with the consumers, but you have to be on one side or the other, it seems to me. One way to do this is to either consolidate or cluster the existing ERIC centers. The second is to think about aligning the ERIC system with the priorities which are manifest in the missions of the research centers.

Those are two sets of ideas. Hopefully, they will provoke further thought. Thank you for the opportunity to be here.

Milton Goldberg

Director, Office of Research
Office of Educational Research and Improvement
U.S. Department of Education

I am going to make some comments about what I heard without necessarily referring to the specific individual who made the comment.

First, I was struck by the mention of the number of programs across the government that are not attended to in the papers that were discussed here, nor were those programs mentioned very much in the presentations.

I must say that as a government bureaucrat I myself was struck by the notion that we have a lot of nerve asking others to collaborate when you consider how inadequately we do it ourselves. But that doesn't stop us, nor should it, I think. I think we should continue asking and pressing ourselves to consider better ways to work together with others who have mutual concerns.

The issue of the bottom line came up more than once. It struck me that that is not an unimportant matter. I would like to make a suggestion. You can't make student learning the bottom line, because every time we tried over the years with the institutions with which I have had some association, whoever they are, it has always been pointed out to us that there are so many other variables that you can't really do that; you can't really hold the institution accountable.

What I would suggest is that the bottom line has to be through some agreement we reach on what we agree an institution can be held accountable for. In other words, who are the consumers that you are attempting to help, and what are the ways you propose assisting them, and how will you be held accountable for the quality and nature of the service. I think there is not adequate agreement about bottom line across all the institutions that we presently support.

On the issue of the cost of collaboration, I would like to suggest that I do believe that collaboration is costly. I also believe, however, that some of the best examples we have of collaboration that I am aware of have occurred naturally. So I agree with Susan in that regard.

I would like to suggest that one of the things we ought to do is perhaps identify some of these examples of collaboration that have occurred and try to learn more internally. After all, we are an R&D organization. Perhaps we ourselves ought to study a little more about how these things have worked, what has made them work, and perhaps do some documentation of these collaborations that might be made available to all of us.

[T]he clients of the work that OERI supports need to have a far more important role in the formation, the implementation, and the evaluation of the work we support.

On the issue of dissemination, Chris' notion about dissemination being part of all grants, I couldn't agree more. I don't think that necessarily means that every organization and every grant needs to accomplish exactly the same things, but every organization that gets an award from OERI, it strikes me, needs to consider how the consumers who are supposed to benefit from this piece of work will either get the information or will be helped to get the information that this particular award will make available.

I also believe, however, that the institutions that are represented in this room do have primary functions and that they need to play out those functions. But at the same time, each of the institutions may end up doing some of the things that other institutions do. That is true across the board. I would hate to believe that anybody ends up saying, for example, that research centers don't help practitioners, because I don't believe that to be the case.

Finally, the issue of the clients and our attention to clients. I believe we have a long way to go in that regard, but I couldn't agree more that the clients of the work that OERI supports need to have a far more important role in the formation, the implementation, and the evaluation of the work we support.

Nelson Smith

Director, Programs for the Improvement of Practice
Office of Educational Research and Improvement
U.S. Department of Education

In listening to the members of the panel, it occurs to me that there are within the existing system a few relatively simple steps that can be taken. One of these was mentioned by Chris when he talked about building dissemination into all of our programs. We are currently trying to do something along these lines with one of our new programs. We are trying to conform the specs for the applications to the existing specifications for the Program Effectiveness Panel of the NDN so that when projects come in we will be relatively sure that the winning projects are going to be in the kind of shape in terms of their evaluation data that we can get them fairly quickly into the NDN. We have this apparatus set up. We ought to be able to use it by conforming things in that way.

It was mentioned by one of the panelists that we should be able to provide documentation of the effectiveness of our programs. I agree wholeheartedly. We have tried to do that in the last few years and we have tried specifically to do that in fact with reference to an evaluation of the labs. It has been difficult. As things have happened, our funding for that has gone to other purposes. There are certain things that we don't have control over, but that is one of the things that I would like to see happen, much more specific evaluation, not just of whether the entities that we fund across the board are doing what we ask them to do, but whether they have an impact out in the school systems.

As Susan Fuhrman said, collaboration is not an end in itself. I would like to turn for a moment the whole emphasis here away from what we are doing at this level, looking down toward the consumer and what the consumer needs, looking up towards what we are doing here. Or maybe the ups and downs should be reversed in that formula.

When do you collaborate? You collaborate when you need to get something done and you can't do it by yourself.

When do you collaborate? You collaborate when you need to get something done and you can't do it by yourself. Our mission, it seems to me, is to stimulate innovation and

improvement at the school level. I think we ought to be looking at how the consumers ought to be able to collaborate with each other using the devices and the services that we put out.

If I could quote from—I don't know whether to call them educators of the 20th century or prominent politicians—Barry Goldwater and Chairman Mao. You rarely see them together at the same time. Mao Zedong said, Let a thousand flowers bloom. There is nothing intrinsically wrong with having a lot of different approaches out there to the solution of a problem. If I can paraphrase Barry Goldwater, competition and pursuit of innovation is no vice and collaboration in pursuit of confused goals is no virtue.

Great ideas spread because people need them, whether the idea is freedom or whether the idea is tabletop fusion. Around the world right now people know that we need energy, and so there is tremendous competition to fulfill that need in whatever way possible.

The fulfillment creates a marketplace. My qualm about our discussion today is that we are dealing with the marketplace as we have established it. As Chris pointed out, when much of the current system was established in 1965, the world was a very different place. There simply was not the market in educational products and services that there is today with the $330 billion that are spent across the country each year. Yet we operate from what economists call a market failure model as if there were no real market, as if we could decide what needs to be done and then somehow press that down into the school systems.

Maybe there is a need for a two-tier approach, because there are places where the market does fail. During our oversight hearings a couple of months ago, Congressman Stokes, holding up our publication *Becoming a Nation of Readers: Implications for Parents*, asked, "What do you do when you have a parent who can't read? How are you going to get that parent to participate in teaching the kids to read?"

Well, that is a place in which we have research. We know how to act and we have to, in fact, be very aggressive in moving that research downward. But for much of the rest of the country there are consumers who want to do the right thing and who want to participate to the extent possible in using research if they understand its importance and if they have access to it.

So instead of making sure that we disseminate from the top down, I would like us to realize that there is no great automatic system possible. We will never get to the place where everybody has exactly one function and it is all computerized and we can push a button and the exact combination of right products will land on the doorstep of the school.

I think part of this process is to find ways of empowering the consumer, the parent, the teacher, the school principal who has little control over textbooks and things of that sort, and to get them creatively into the process so that they can make choices through the NDN, through the labs, through the centers on what they feel is necessary for their own work.

Emerson Elliot

Acting Commissioner
National Center for Education Statistics
Office of Educational Research and Improvement
U.S. Department of Education

Sharon asked me to talk about what I might like to see in ERIC, so these may supplement or complement some of the other things you have heard about.

One of the things I frequently tell my staff members is that I expect them to keep up with research literature and to know what research is saying, because I think the only way that they can design sensible data collection systems is to know what already has been done and to make use of the measures that we have learned about in research. We don't do that very well, actually. I would like to state what seems to me a parallel truth, and that is that I think ERIC should keep up with what NCES is doing and I don't think you do that as well as you should, or certainly not as well as you could.

So what do I want of ERIC? The first thing is that I think ERIC should regularly include within its data and retrieval systems information about NCES data, where to find it, what is in it. We have a lot that is coming. I have no idea right now—no doubt you can tell me in the hall on the way out—what information you have about such things as our school and staffing study that is going to be producing a major beginning of a continuing data collection with information about schools as places and about teaching and about teachers as individuals.

About the National Assessment of Educational Progress. That is very hard to use. Larry Rudner knows all about how to use it, and he can tell you if you ask him. That is going to be done on a State-by-State basis beginning in 1990. I don't know how many people are familiar with that, but that is one thing that I hope will soon be in the ERIC system.

The study of college faculty is coming out this year; the student financial aid study is already out. Longitudinal studies produce information all the time. I like to assert that the data that the Center is now producing is far more useful for analytic purposes than it has been previously. It is more useful in part because it is more comparable. We are making a major effort with States and other data providers to make sure that the data are more comparable to begin with.

It is also more usable for analytic purposes because the databases are larger and subdivisions can be made that have various kinds of representative qualities: public schools, as always, but also private schools; States as well as national totals and regional totals; divisions by cities, suburbs, rural areas, and other qualities.

I think those kinds of things about our data should be a part of the ERIC system. But that is not enough. I think that ultimately we should work in the direction of actually having data in the ERIC system.

I would begin with what is easy. The tables from the *Digest* ought to be a part of the system. Or tables from any of our reports should be accessible in the system, but ultimately I think that in some electronic means it should be possible for analysts to retrieve data directly. That remains a major challenge. We have data users all the time now asking us for floppy disks instead of tapes, and I think increasingly people will be asking for CD-ROM. Since those are the people who are analyzing the data, somehow we have to find a way to produce it in a form that they can use.

[C]ollaboration best comes about where the missions intersect, where there is something to be done jointly that both people want to do because it serves both of their purposes.

Well, John said let ERIC be ERIC. I think we need to talk a minute about letting the Center be the Center. One way to think about collaboration is that it begins with a mission. I think every agency must have a very clear sense of its own mission, which is why I support the particular configuration that we have of OERI, because I think each part of OERI has a very strong mission. I think the collaboration best comes about where the missions intersect, where there is something to be done jointly that both people want to do because it serves both of their purposes.

One thing I frequently think about is what is the unique mission of NCES, because it seems that everybody gathers data of some kind and everybody does analyses. So what is it that we do uniquely? One of the things that statistical agencies in the Federal Government do uniquely is standardize and define things. You have to watch out, because sometimes the wrong things get defined and those are the measures people follow. That is a challenge for us. Standardization and uniformity is one of the major things that statistical agencies are all about.

Another is the collection of large-scale data sets that have good, usable properties. Then we report things, and we put out data tapes. But we do very little analysis. Our reports are frequently dull almost by design, because the integrity of our data would be questioned if people thought that we were engaging in policy advocacy or program evaluation or causal modeling. So those are things that we eschew in our reports.

But that means if our data are to see the light of day that they need to find their way into the hands of analysts. That means the Office of Research and PIP, and the grantees and contractors of those organizations, and universities and State legislatures and governor's offices, and all the people who do analytic work, certainly including the ERIC centers as well, must have and use our data or no one will ever know about it.

Finally, the last thing that I would like to ask of ERIC is your advice. One reason that I want to encourage ERIC centers to make use of our data is to test out my assertion that our data are better. If they are better, then your reports will be better and the public will be able to realize the enormous amounts of money that it is putting into NCES.

But we will get something else out of that. In the course of using them you will learn about their attributes, about their shortcomings, and I hope you even learn about some of their advantages. But you will learn about their shortcomings, and I hope that you will let us know. That is the final thing that you need to give to us, your knowledge and experience from using those databases so that we can make them still better.

Ray Fry

Senior Advisor, Library Programs
Office of Educational Research and Improvement
U.S. Department of Education

In listening to the many interesting presentations this morning, one of the things that came to me is that there may be a sleeper institution out there in the educational spectrum that you could be overlooking, and that is the public library. If lifelong learning is really critical in today's society, if early childhood education is that important, if parental involvement is a good thing, the public library, the cradle-to-the-grave institution, is there and no one is denied admittance. Anyone can have a card.

It is in the area of dissemination that I think the public library could play a greater role. We have had a program called Inter-Library Cooperation that has been going since the mid-1960s under the Library Services and Construction Act. This is a program through the State library agencies to build networks of libraries of all types, to tie the school library into the public library, to the academic libraries, to the special libraries.

When Dr. Hawley mentioned the school librarian playing a greater role in resources and research and dissemination, that is very true. School libraries, particularly in the last 8 or 10 years, are coming into these networks. In the late 1960s and 1970s, it was mostly networks of public libraries with academic libraries coming in somewhat, but now school libraries more and more are coming into these networks. Right here in the District of Columbia several of the large high schools are tied in by computer to the Martin Luther King main public library to tap resources.

Many of you as you have moved around the country, as most of us have, know there are a lot of weak public libraries out there, and we really don't have a good fix on the status of public libraries. But thanks to Emerson and NCES, the first attempt at getting good statistics on public libraries is under way, and I would say within 2 or 3 years we will have a good statistical system on public libraries.

I have been working on an accreditation effort for public libraries for about 3 years. I can't say that things look that rosy in the accreditation area. We do have, though, a new program called the Public Library Development Program where each community comes up with an assessment and a plan for its own public library.

One other comment in closing. Not only under Title III are we funding projects, about $20 million a year, through the States to build these networks, but under Title I of the Library Services and Construction Act we are funding about 3,500 projects a year to improve services for citizens of all ages, many going to early childhood education, of course. You might be interested to know that Major Owens, who is a librarian, administered one of these LSCA projects before he became a Congressman. We think that is one of the ways he became so well known in his community.

Bruno V. Manno

Acting Assistant Secretary
Office of Educational Research and Improvement
U.S. Department of Education

Let me conclude by saying that I started the program by using a well-worn phrase. Just because it is a well-worn phrase, I think in a lot of respects it points to the important truth. The important truth is that we do in fact have in a certain respect a window of opportunity. It is brought on by the confluence of a number of different things. Many of these things were referred to over the course of our conversation.

Strictly looking at this issue from an OERI perspective, we have the awarding of the ACCESS ERIC contract, which is the first new addition to ERIC in a number of years. In addition to that, we have the lab and center competition coming up. Actually we are in the process of staging that competition right now. We have just received the lab report from Chris' group. Milt Goldberg and his staff are just about ready to begin opportunities for public comment on the center part of this competition in which, I am sure, you folks should be involved.

In addition to that, there is this general sort of trend that I referred to early on in my comments, the trend that points to the need for RD&D. It is not just the education community talking; it is the wider community of policymakers, of what I might call lay people, of the business community, of other citizens saying that if there is any one role that the Federal Government has when it comes to education, it is the provision of accurate, reliable, timely information on education.

[I]f there is any one role that the Federal Government has when it comes to education, it is the provision of accurate, reliable, and timely information . . .

All of this, I think, points to that so-called window of opportunity with or without a house around it. We would like to hope that over the course of the next few years we have the opportunity, if you think the house has been totally torn down, to begin to rebuild the house. Of if you are of the opinion that the house is in need of some renovation, that we have the opportunity to restore and renew the house.

Sharon Horn

Acting Director, Information Services
Office of Educational Research and Improvement
U.S. Department of Education

Where do we go from here? If you are on our list, you will receive papers and proceedings from this meeting. We also would like to ask each of you who has an interest to submit in writing to us, whether in bulleted form or through some form of a paper, exactly what you think about this RD&D issue and also how this collaborative piece fits within the documentation of what we are going to try to do within OERI. The window is open. We have begun.